

S E C T I O N

# 7

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## **Acute inpatient services**

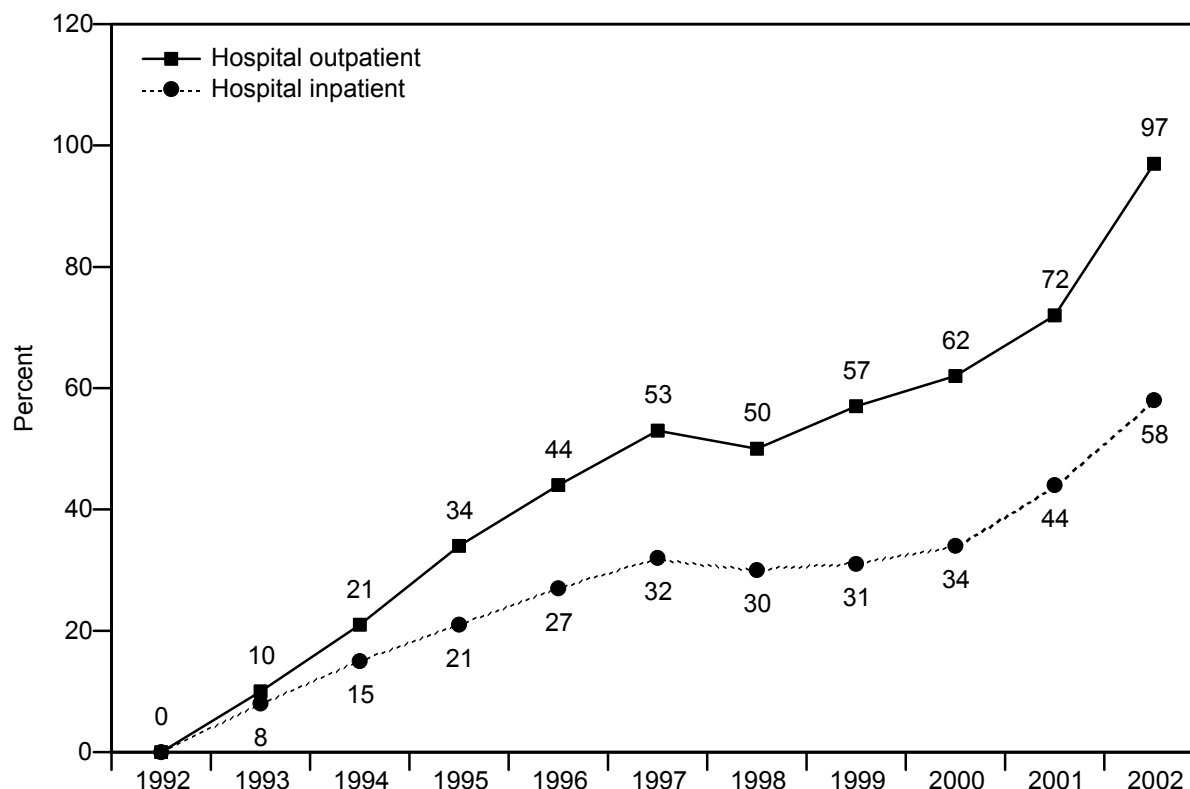
**Short-term hospitals**

**Specialty psychiatric facilities**

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**Chart 7-1. Cumulative percentage change in Medicare hospital inpatient and outpatient spending, fiscal years 1992–2002**



Note: Cumulative change is the total percent increase from 1992 to the year indicated. Includes inpatient services covered by the acute inpatient prospective payment system (PPS) and psychiatric, rehabilitation, long-term care, cancer, and children's hospitals and units; includes outpatient services covered by the PPS and other outpatient services. Payments include both program outlays and cost sharing incurred by beneficiaries.

Source: CMS, Office of the Actuary.

- Medicare hospital inpatient spending increased 58 percent (4.7 percent per year) and outpatient spending 97 percent (7.0 percent per year) from fiscal year (FY) 1992 to FY 2002. A freeze in inpatient payment rates in the Balanced Budget Act of 1997 (BBA), combined with lower Medicare discharges, reduced inpatient spending in 1998. Higher Medicare discharges, a higher update, case mix change, and expansion of disproportionate share payments increased inpatient spending in 2001 and 2002. Outpatient spending fell in 1998, reflecting the BBA's elimination of inadvertent overpayments. Transitional corridor payments and new technology payments in the outpatient prospective payment system, along with volume increase, increased outpatient spending in 2001 and 2002.
- Aggregate Medicare inpatient spending was \$113 billion and outpatient spending was \$22 billion in FY 2002.

**Chart 7-2. Diagnosis related groups with highest volume, fiscal year 2003**

DRG number	DRG name	Percentage of discharges	Number of discharges (thousands)
127	Heart failure and shock	6%	693
89	Simple pneumonia and pleurisy age > 17 with cc	4	519
209	Major joint and limb reattachment procedures of lower extremity	4	427
88	Chronic obstructive pulmonary disease	3	397
182	Esophagitis, gastroenteritis, and miscellaneous digestive disorders age > 17 with cc	2	292
296	Nutritional and miscellaneous metabolic disorders age > 17 with cc	2	261
174	GI hemorrhage with cc	2	259
143	Chest pain	2	246
14	Intracranial hemorrhage or cerebral infarction	2	242
320	Kidney and urinary tract infections age > 17 with cc	2	211
Total Medicare discharges		100	11,900

Note: DRG (diagnosis related group), cc (complication or comorbidity), GI (gastrointestinal).

Source: Federal Register, May 18, 2004, p. 28195–28818. Available at <http://www.gpoaccess.gov/fr/index.html>.

- In fiscal year 2003, 10 diagnosis related groups (DRGs) accounted for 30 percent of discharges from hospitals paid under the acute inpatient prospective payment system.
- Medicare inpatient cases are assigned to 516 DRGs based on discharge diagnoses, procedures performed, age, sex, discharge destination, and presence of complications or comorbidities.

**Chart 7-3. Number of hospitals and Medicare discharges, by hospital group, 2002**

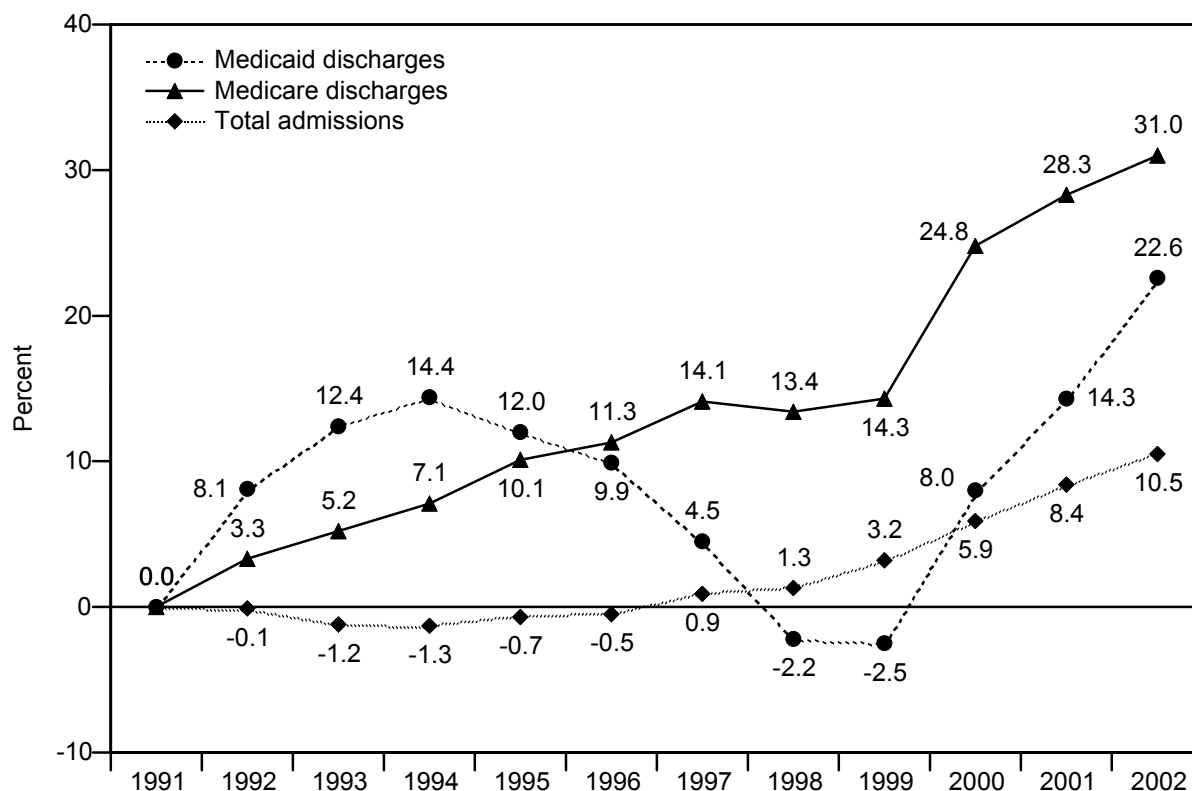
Hospital group	Hospitals		Medicare discharges	
	Number	Share of total	Number (thousands)	Share of total
All hospitals	3,996	100.0%	10,916	100.0%
Urban	2,517	63.0	8,852	81.1
Rural	1,479	37.0	2,063	18.9
Large urban	1,461	36.6	5,051	46.3
Other urban	1,056	26.4	3,801	34.8
Rural referral	239	6.0	836	7.7
Sole community	494	12.4	493	4.5
Small rural Medicare-dependent	254	6.4	204	1.9
Other rural < 50 beds	244	6.1	147	1.3
Other rural ≥ 50 beds	248	6.2	384	3.5
Voluntary	2,410	60.3	8,003	73.3
Proprietary	737	18.4	1,552	14.2
Government	809	20.2	1,350	12.4
Major teaching	290	7.3	1,586	14.5
Other teaching	813	20.3	3,779	34.6
Nonteaching	2,893	72.4	5,550	50.8

Note: Analysis includes all hospitals covered by Medicare's acute inpatient prospective payment system. Critical access hospitals, hospitals in Maryland, and care paid for through other payment systems (those for long-term care hospitals, rehabilitation facilities, and psychiatric facilities) are excluded. Large urban areas have populations over 1 million. Major teaching hospitals are defined by a ratio of interns and residents to beds of at least .25, while other teaching hospitals have a ratio of below .25.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- In 2002, 3,996 hospitals provided 10.9 million discharges under Medicare's acute inpatient prospective payment system.
- Almost two-thirds of the hospitals are located in urban areas, and about 60 percent are voluntary (non-profit, non-government). Major teaching hospitals compose 7 percent of the hospitals but provide 15 percent of the care. About a quarter of hospitals are covered by special payment provisions intended to help rural hospitals (the rural referral, sole community, and small rural Medicare-dependent hospitals), but these facilities provide only 14 percent of the discharges.

**Chart 7-4. Cumulative percentage change in Medicare, Medicaid, and total hospital admissions, 1991–2002**

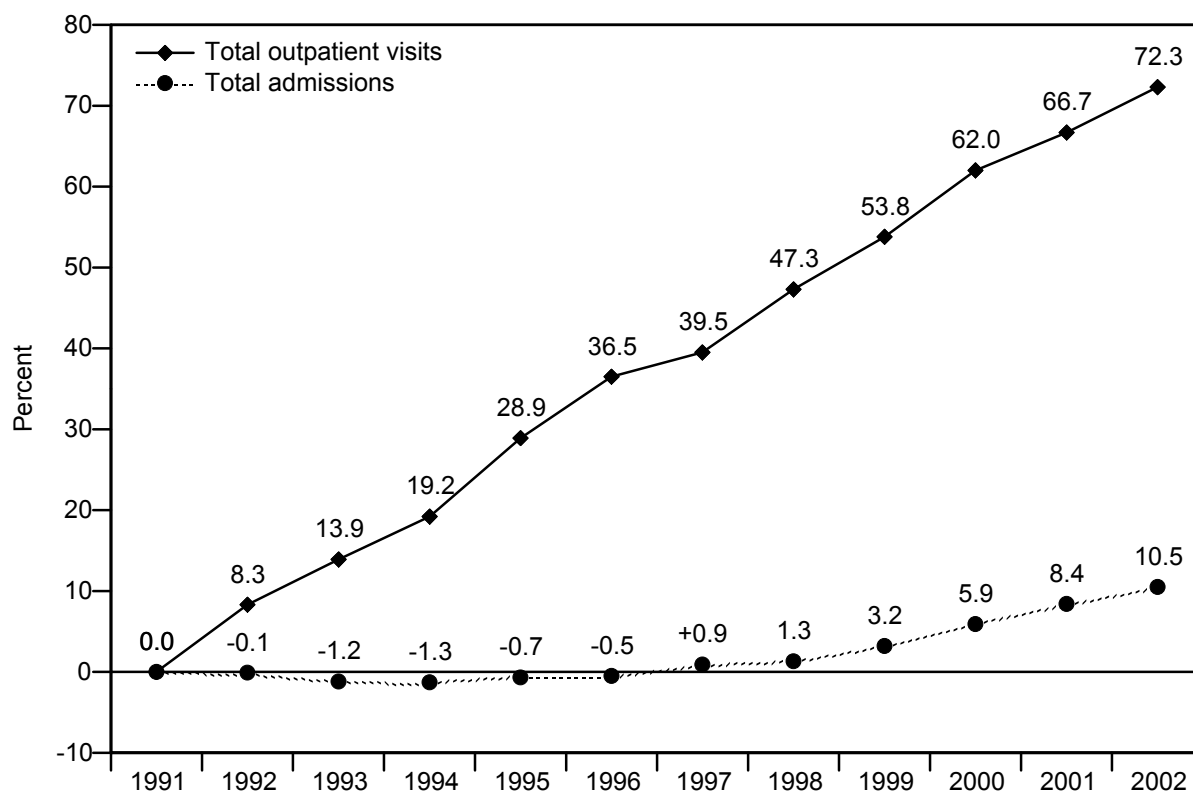


Note: Cumulative change is the total percentage increase from 1991 to the year indicated. Data are admissions to and discharges from approximately 5,000 community hospitals, excluding nursing home units. Medicare discharges include acute inpatient, psychiatric, rehabilitation, long-term care, cancer, and children's hospitals and units.

Source: American Hospital Association annual survey of hospitals.

- Total hospital admissions fell 1 percent from 1991 through 1994 and increased 12 percent through 2002 for a total increase of 11 percent from 1991 to 2002. Medicare discharges grew every year except 1998, increasing by 31 percent from 1991 to 2002. This increase surpassed the rate of growth in Medicare beneficiaries by 13 percent. Medicaid discharges increased 14 percent from 1991 to 1994 and declined 15 percent through 1999 before increasing 26 percent through 2002. This reflected eligibility expansions that increased Medicaid enrollment by 46 percent from 1990 to 1995, followed by a 2 percent drop in enrollment through 2000 and a 9 percent rise through 2002.
- Total admissions were 35 million, Medicare discharges were 14 million, and Medicaid discharges were 6 million in 2002.

**Chart 7-5. Cumulative change in total admissions and total outpatient visits, 1991–2002**

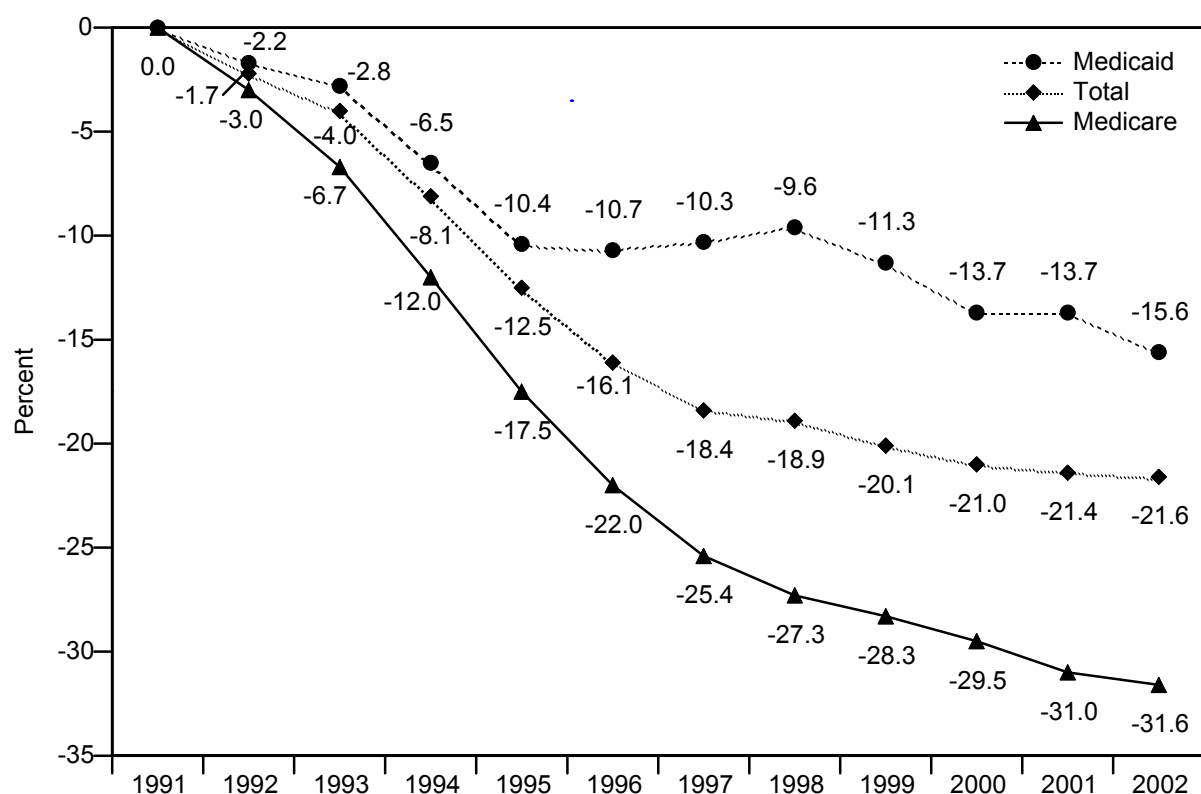


Note: Cumulative change is the total percent increase from 1991 through the year indicated. Data are admissions to approximately 5,000 community hospitals, excluding nursing home units.

Source: American Hospital Association annual survey of hospitals.

- Hospital outpatient service use has grown much more rapidly than inpatient service use. Total hospital outpatient visits increased 72 percent from 1991 to 2002, with increases exceeding 4 percent in every year except 1997, 2001, and 2002. Total admissions grew more slowly than outpatient visits, increasing just 11 percent from 1991 to 2002.
- There were 561 million outpatient visits and 35 million admissions to community hospitals in 2002.

**Chart 7-6. Cumulative change in Medicare, Medicaid, and total hospital inpatient length of stay, 1991–2002**



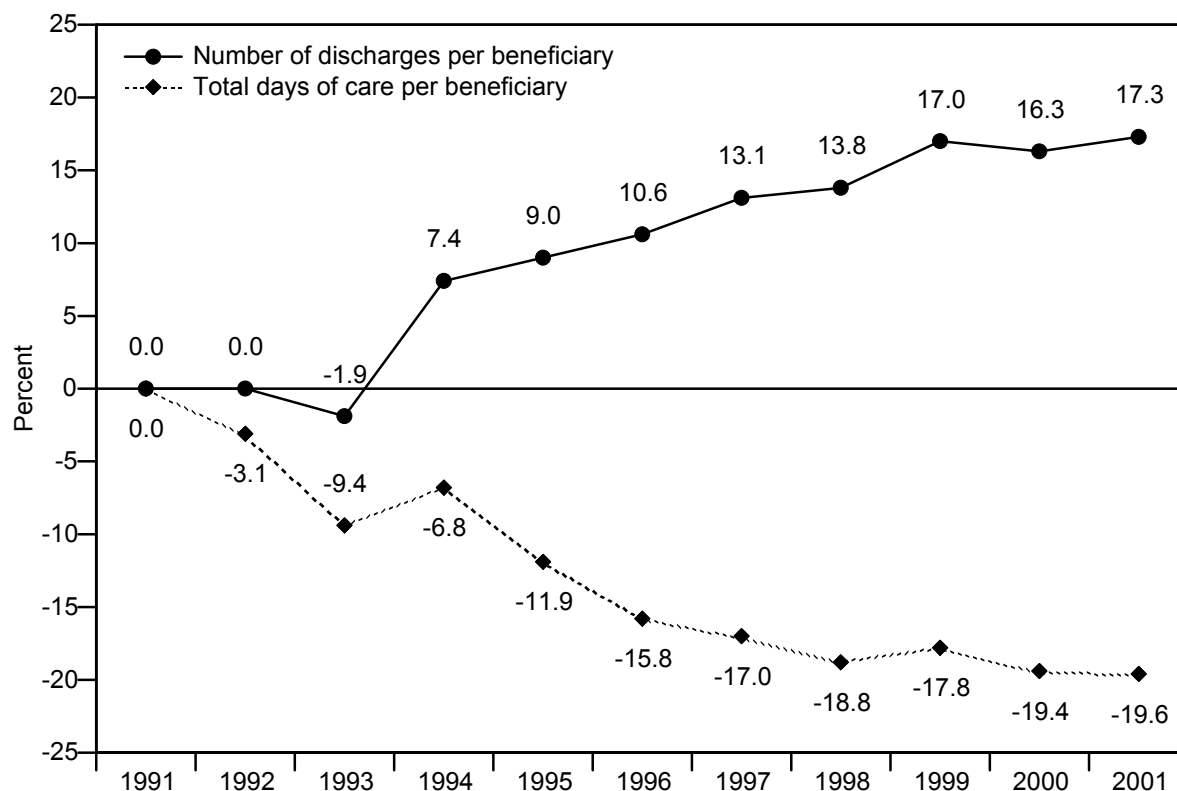
Note: Cumulative change is the total percent increase from 1991 to the year indicated. Length of stay is calculated from admissions or discharges and patient days for approximately 5,000 community hospitals, excluding nursing home units.

Source: American Hospital Association annual survey of hospitals.

- Length of stay for all hospital inpatient admissions fell by 22 percent to 5.1 days and for Medicare inpatients by 32 percent to 6.0 days from 1991 to 2002, with rates of decline slowing after 1995. Medicaid length of stay fell 16 percent to 5.2 days over this period, with increases in 1997 and 1998.



**Chart 7-7. Cumulative change in Medicare inpatient days per beneficiary and discharges per beneficiary, 1991–2001**



Note: Cumulative change is the total percentage increase from 1991 to the year indicated. Data are short-stay hospital Medicare patient days and discharges. Rate is per beneficiary enrolled in Part A. Beginning with 1994 data, the statistics do not reflect managed care enrollment.

Source: MedPAC analysis of data from CMS.

- While discharges per beneficiary have increased, length of stay has fallen. Medicare hospital use rates increased from 1991 to 2001, with 17 percent more hospital discharges per enrollee at the end of the period. However, declining length of stay led to 20 percent fewer days of inpatient care for each enrollee in 2001 compared to 1991.
- There were 366 Medicare hospital discharges and 2,171 patient days per 1,000 beneficiaries enrolled in Part A in fiscal year 2001.
- Beginning in 1994, the number of beneficiaries excludes managed care enrollees, increasing the rate per 1,000 beneficiaries enrolled in Part A (see Chart 12-2).

**Chart 7-8. Simulated Medicare inpatient payments, by component and hospital group, reflecting payment policy under the MMA**

Hospital group	Percent of total payments					Total payments (millions)
	Base	Indirect medical education	Disproportionate share	Outlier	Additional rural hospital*	
All hospitals	82.9%	5.0%	6.9%	3.5%	1.7%	93,200
Urban	82.7	5.7	7.5	3.9	0.2	79,666
Rural	83.8	0.6	4.0	1.1	10.6	13,534
Large urban	80.8	7.1	7.9	4.1	0.0	47,912
Other urban	85.5	3.7	6.7	3.6	0.4	31,754
Rural referral	85.5	1.2	4.1	1.7	7.5	6,072
Sole community	71.1	0.0	1.7	0.3	26.9	3,558
Small rural Medicare-dependent	94.2	0.0	3.6	0.4	1.9	1,012
Other rural < 50 beds	93.4	0.0	6.1	0.5	0.0	732
Other rural ≥ 50 beds	91.8	0.1	6.8	1.4	0.0	2,160
Voluntary	83.6	5.4	6.1	3.5	1.4	69,503
Proprietary	85.2	1.7	9.0	3.1	1.0	12,251
Government	76.1	6.1	10.2	3.7	3.9	11,359
Major teaching	67.8	16.7	10.0	5.4	0.1	20,308
Other teaching	85.1	3.8	6.7	3.7	0.7	33,313
Nonteaching	88.6	0.0	5.6	2.4	3.3	39,579

Note: MMA (Medicare Prescription Drug, Improvement, and Modernization Act of 2003). Analysis includes all hospitals covered by Medicare's acute inpatient prospective payment system (PPS). Critical access hospitals, hospitals in Maryland, and care paid for through other payment systems (those for long-term care hospitals, rehabilitation facilities, and psychiatric facilities) are excluded. Simulated payments reflect 2004 payment rules as amended by provisions of the MMA applied to actual number of cases in 2002. Actual payments in 2004 will likely be higher than shown due to growth in number of cases.

\* Payments received by sole community and Medicare-dependent hospitals beyond what would have been received under PPS. A few sole community hospitals are located in urban areas.

Source: MedPAC analysis of claims and impact file data from CMS.

- If the prospective payment system (PPS) discharges that hospitals furnished in 2002 had been paid for under current payment policies, reflecting the provisions of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), then Medicare would have spent \$93.2 billion. This total is composed of base diagnosis related group payments (82.9 percent); indirect medical education (IME) payments (5.0 percent); disproportionate share (DSH) payments (6.9 percent); outlier payments (3.5 percent); and additional payments to rural hospitals through the sole community and Medicare-dependent programs (1.7 percent).
- Urban hospitals receive most of the IME, DSH and outlier payments, but rural hospitals receive almost all of the extra payments from the sole community and Medicare-dependent programs. The extra amounts from these four programs combined account for 16.7 percent of payments for urban hospitals and 15.6 percent for rural hospitals.
- Major teaching hospitals have the largest share of payments coming from outlier payments (5.4 percent).
- The increase in payments resulting from MMA provisions, along with other policy changes occurring between 2002 and 2004, are highlighted in Chart 7-18.

## Chart 7-9. Composition of the hospital market basket

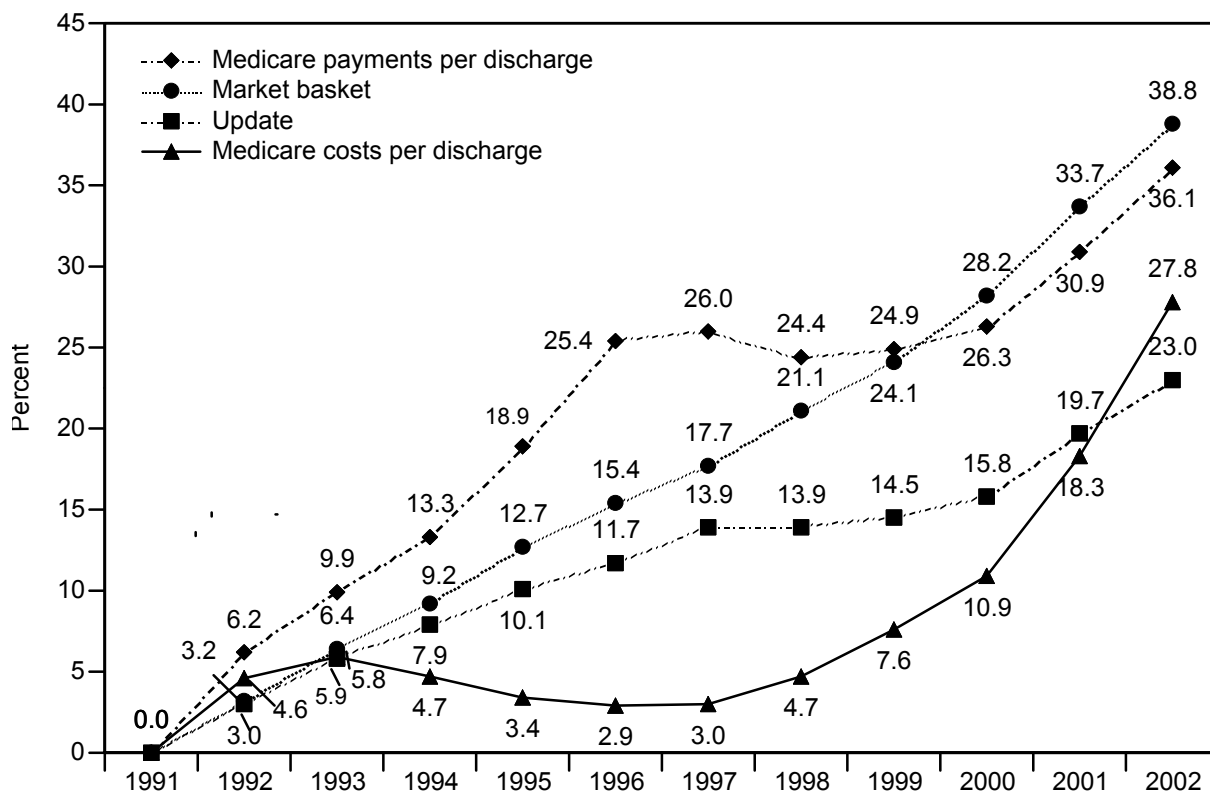
Input	Weight (share of total)		Forecasted price changes for 2005
	Subcategory	Category	
Total	N/A	100.0%	3.3%
Compensation	N/A	61.7	3.6
Wages and salaries	50.7%	N/A	3.5
Employee benefits	11.0	N/A	4.2
Professional fees	N/A	5.4	3.4
Utilities	N/A	1.4	-2.7
Malpractice insurance	N/A	0.8	6.8
All other	N/A	30.7	2.6
Other products	19.5	N/A	2.6
Other services	11.2	N/A	2.6

Note: N/A (not available). The table omits subcategories of utilities, all other products, and all other services.

Source: Global Insight, Health-Care Cost Review, First Quarter 2004, Exhibit 6.1, Table 6.1FY.

- CMS and the Congress use forecasts of the hospital market basket, a measure of the input prices paid by hospitals, to update payment rates. Over half of hospital operating costs, as measured by the market basket, are for labor expenses, and are expected to increase 3.6 percent in fiscal year 2005, more rapidly than growth in prices for other products and services. The forecast for the overall market basket is 3.3 percent.
- The hospital market basket reflects costs for hospitals paid under the acute inpatient prospective payment system. A CMS contractor prepares forecasts of price indexes that measure price changes for the market basket cost categories.
- A discussion of the components of recent hospital cost growth can be found in Chapter 3A of the MedPAC March 2004 report to the Congress, available at [http://www.medpac.gov/publications/congressional\\_reports/Mar04\\_Ch3A.pdf](http://www.medpac.gov/publications/congressional_reports/Mar04_Ch3A.pdf).

**Chart 7-10. Cumulative change in Medicare hospital PPS inpatient payments and costs per case, hospital market basket index, and PPS operating update, 1991–2002**

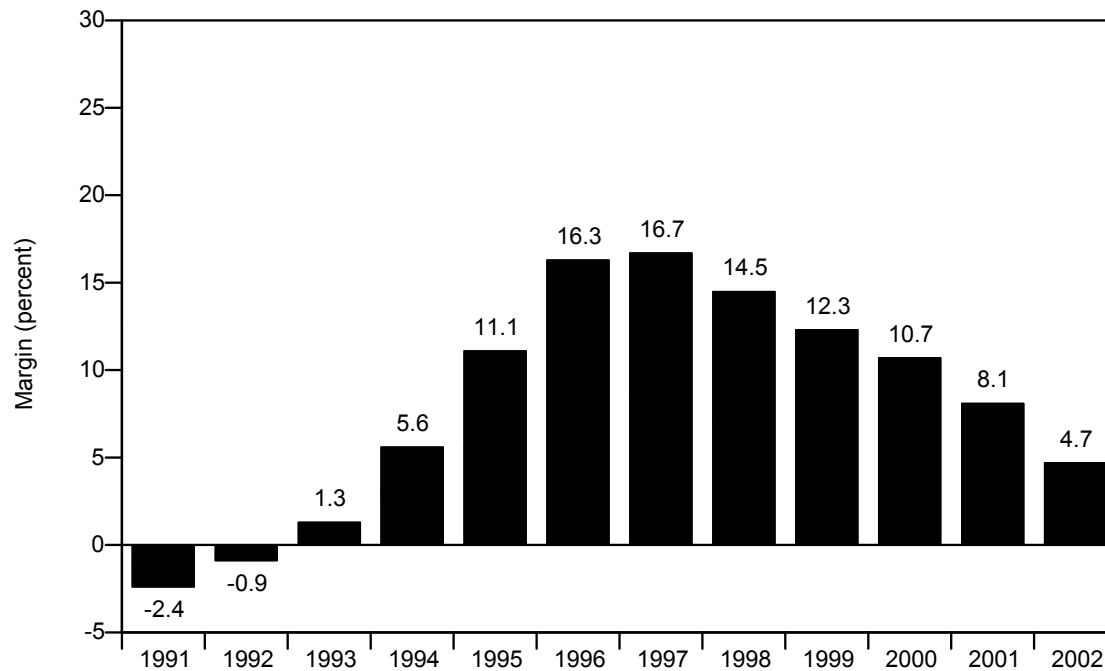


Note: PPS (prospective payment system). Cumulative change is the total percent increase from 1991 to the year indicated.

Source: MedPAC analysis of Medicare cost report data and market basket data from CMS.

- Medicare payments per discharge increased 36.1 percent from 1991 to 2002, less than the increase in the hospital market basket (38.8 percent), but significantly more than the rise in hospitals' costs per discharge (27.8 percent).
- The cumulative update increased inpatient prospective payment system operating payment rates 23 percent from 1991 to 2002, which is 4.8 percentage points less than hospitals' cost growth. However, hospitals' payment increases have exceeded the updates (due mostly to increases in case mix) and consequently payments have risen 8 percentage points more than costs. Hospital costs grew more slowly than the market basket increase before 2001 primarily because of reduced average length of stay.

**Chart 7-11. Medicare acute inpatient PPS margins, 1991–2002**

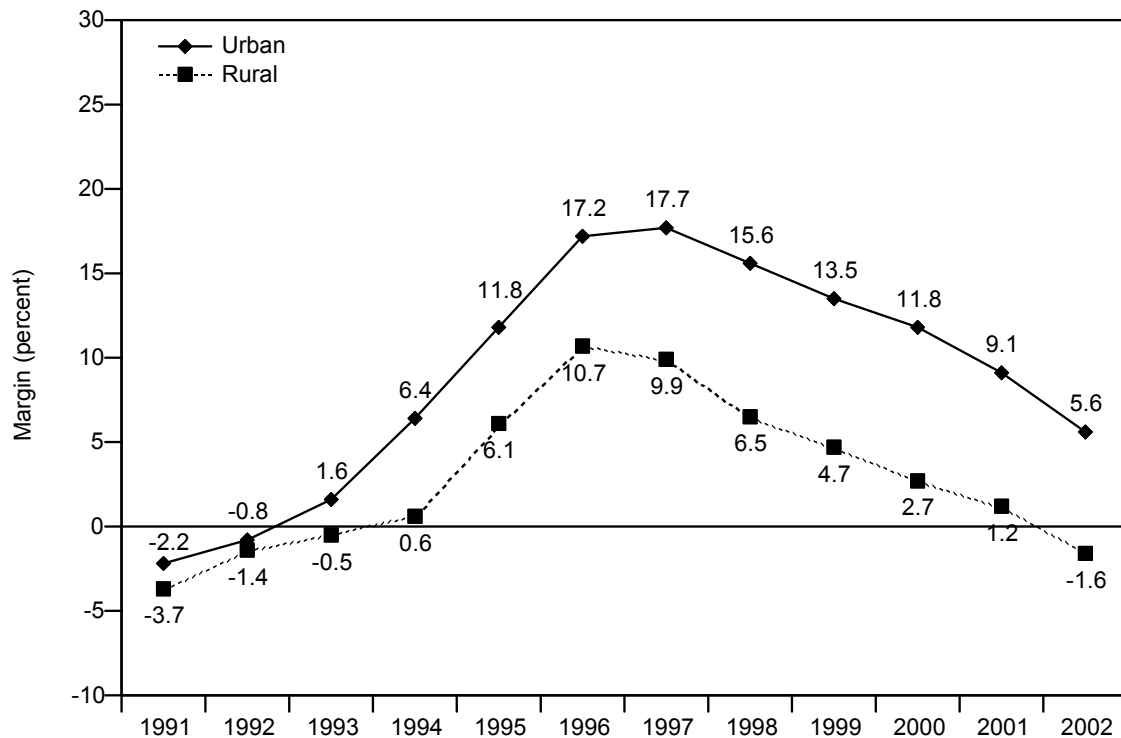


Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Medicare acute inpatient PPS margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- The Medicare's inpatient margin reflects payments and costs for services covered by Medicare's inpatient hospital prospective payment system (PPS). In the past, hospitals had a strong incentive to shift costs from settings under prospective payment (i.e., acute inpatient PPS) to settings paid on a cost basis (i.e., outpatient and post-acute care services). Consequently, inpatient service margins are probably biased upward and outpatient and hospital-based post-acute care service margins are probably biased downward.
- The Medicare inpatient margin increased steadily from 1991 through 1997, from a low of –2.4 percent to a record high of 16.7 percent. After implementation of the Balanced Budget Act of 1997, inpatient margins fell. In 2002, the margin was 4.7 percent.

**Chart 7-12. Medicare acute inpatient PPS margins, by urban and rural location, 1991–2002**

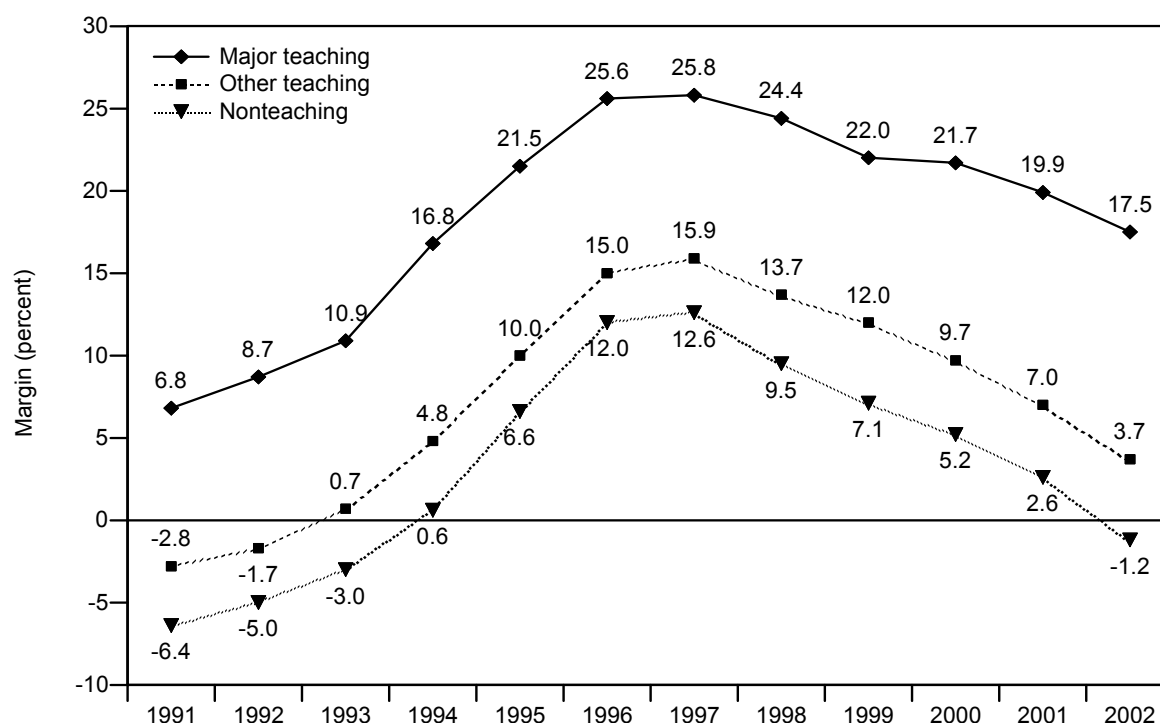


Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Medicare acute inpatient PPS margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- Medicare inpatient margins have consistently been higher for urban hospitals than for rural hospitals. A large part of this difference in financial performance can be explained by special payments, such as the disproportionate share and indirect medical education adjustments that go primarily to urban hospitals.
- The gap between urban and rural hospitals' inpatient margins grew between 1992 and 1998. One factor for this divergence is that urban hospitals had greater success in controlling cost growth, at least partly in response to pressures from managed care. In 2001 and 2002, this difference narrowed somewhat, as payment policies targeted to rural hospitals have been implemented. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 targeted to rural hospitals should reduce the difference in acute inpatient margins further (see Chart 7-18).

**Chart 7-13. Medicare acute inpatient PPS margins, by teaching status, 1991–2002**

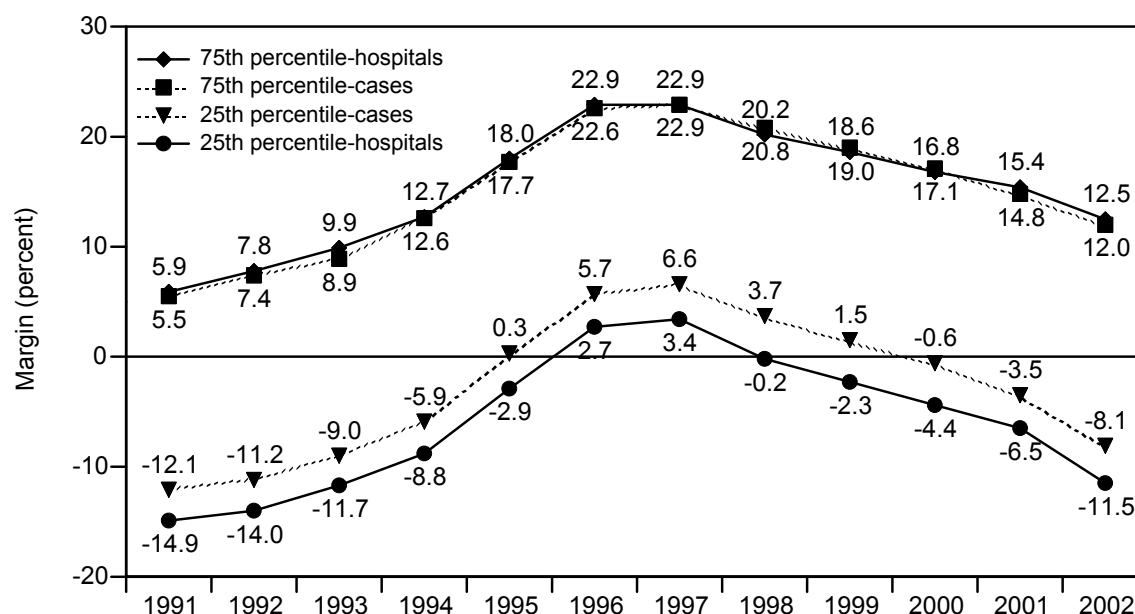


Note: PPS (prospective payment system). Major teaching hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while other teaching hospitals have a ratio of less than 0.25. A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 costs reports were not available. Analysis excludes critical access hospitals. Medicare acute inpatient margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- Major teaching hospitals have consistently had higher inpatient prospective payment system margins than other teaching hospitals and nonteaching hospitals. Major teaching hospitals' and other teaching hospitals' better financial performance is due largely to the additional payments they receive from the indirect medical education and disproportionate share adjustments.
- In 1991, major teaching hospitals' margins stood at 6.8 percent, compared to -6.4 percent for nonteaching hospitals. Margins rose substantially for all groups through 1997, peaking at 25.8 percent for major teaching hospitals and 12.6 percent for nonteaching hospitals. Since then, inpatient margins have fallen less for major teaching hospitals than for nonteaching hospitals, dropping 8.3 and 13.8 percentage points, respectively, primarily reflecting lower growth in per case costs for major teaching hospitals.

**Chart 7-14. Distribution of Medicare acute inpatient PPS margins, 1991–2002**



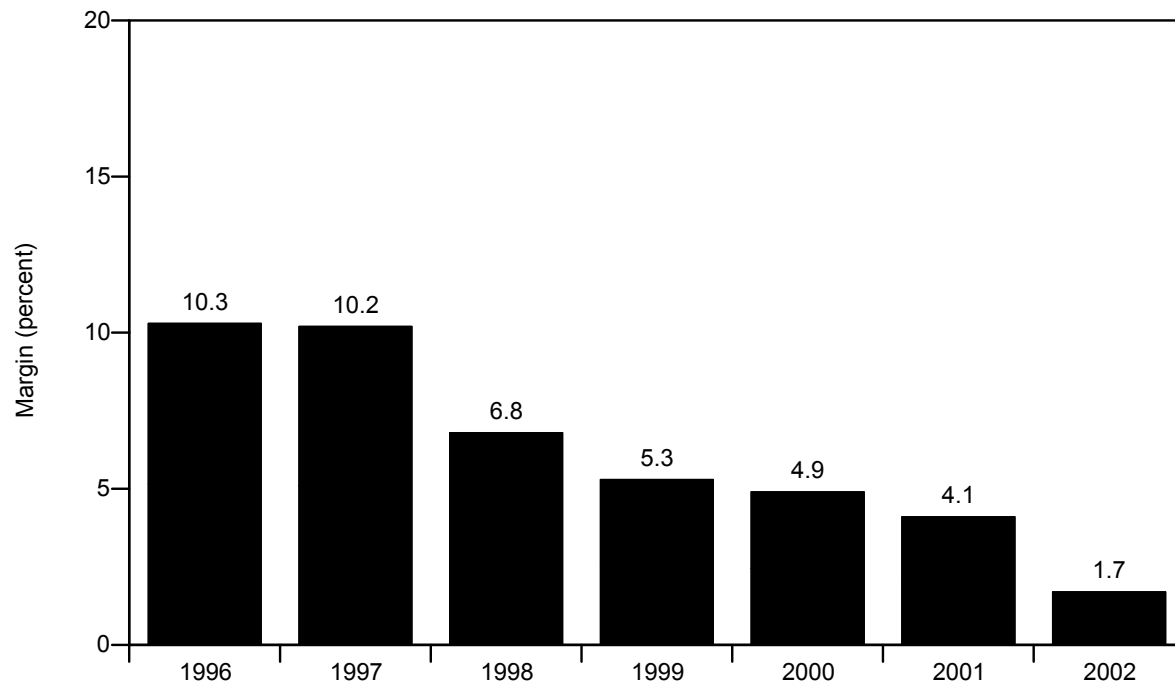
Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Medicare acute inpatient PPS margin includes services covered by the acute care inpatient PPS. The graph shows two measures of distribution—the 25<sup>th</sup> and 75<sup>th</sup> percentiles of margins among hospitals and these percentiles weighted by case load.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- Like the aggregate margin, the trend in the distribution of Medicare inpatient margins rose from 1991 to 1997, and then fell through 2002.
- The gap between the 25<sup>th</sup> and 75<sup>th</sup> percentile of the Medicare inpatient margin for hospitals narrowed slightly between 1992 and 1997. Since then, however, the gap has widened from 19.5 percentage points to 24 percentage points in 2002.
- In 2002, about 51 percent of hospitals had positive Medicare inpatient margins. These hospitals accounted for 53 percent of Medicare discharges.
- There is not much difference between the hospital and case weighted acute inpatient margin at the 75<sup>th</sup> percentile. At the 25<sup>th</sup> percentile, however, the case weighted margin is consistently higher than the hospital based margin, indicating that hospitals in the bottom quarter of acute inpatient margins have a less than proportionate share of cases.



**Chart 7-15. Overall Medicare margins, 1996–2002**

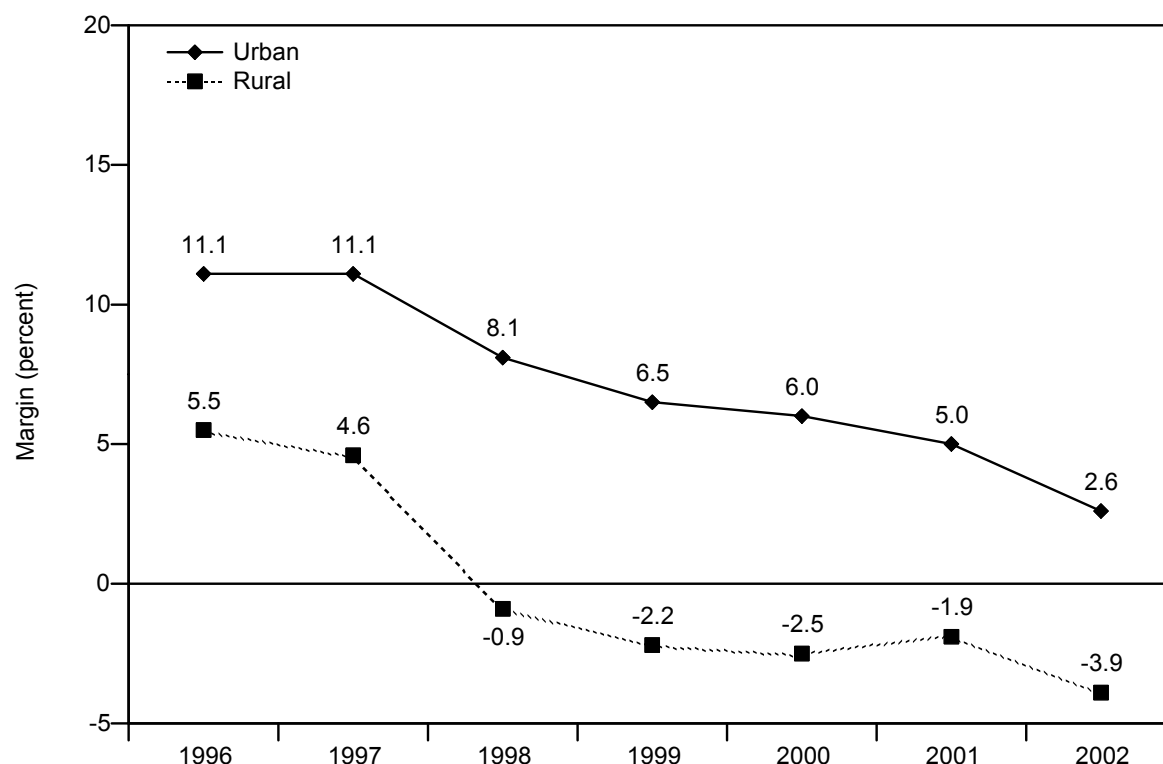


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation units, skilled nursing facilities, and home health services, as well as graduate medical education and bad debts. Data on overall Medicare margins before 1996 are unavailable.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- The overall Medicare margin incorporates payments and costs for acute inpatient, outpatient, skilled nursing, home health, and inpatient psychiatric and rehabilitative services, as well as graduate medical education and bad debts. The overall margin is available only since 1996, but it follows a trend similar to that of the inpatient margin.
- The overall margin is lower than the inpatient margin, which is probably biased upward due to incentives to shift costs to cost centers that have been reimbursed based on costs. The overall margin is intended to correct for any cost allocation bias.
- The overall Medicare margin peaked in 1996 at 10.3 percent. In fiscal year 2002, it was 1.7 percent.

**Chart 7-16. Overall Medicare margins, by urban and rural location, 1996–2002**

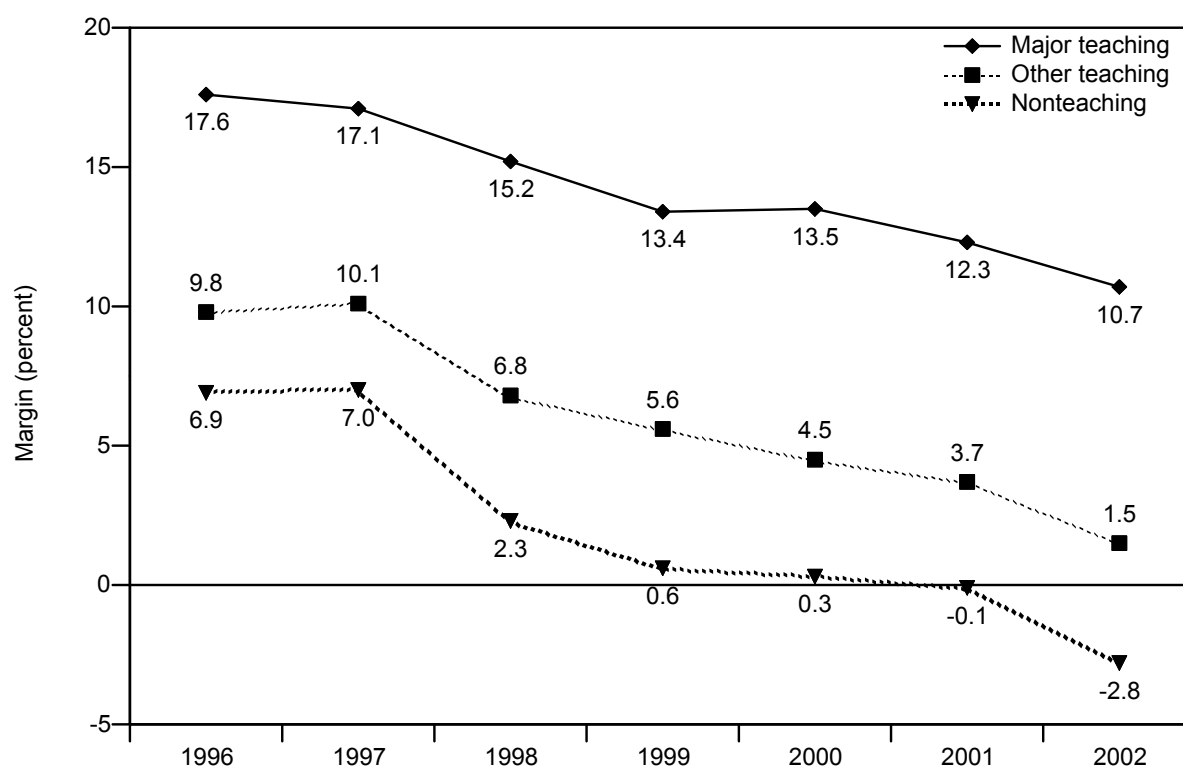


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation units, skilled nursing facilities, and home health services, as well as graduate medical education and bad debts. Data on overall Medicare margins before 1996 are unavailable.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- As with inpatient margins, overall Medicare margins have been consistently higher for urban hospitals than for rural hospitals.
- The difference in margins between the two groups grew between 1996 and 1998 but has since narrowed. In 1996, the overall margin for urban hospitals was 11.1 percent, compared with 5.5 percent for rural hospitals. In 2002, the overall margin for urban hospitals was 2.6 percent, compared with -3.9 percent for rural hospitals. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 targeted to rural hospitals should further narrow the difference in overall Medicare margins between urban and rural hospitals (see Chart 7-18).
- A large part of the difference in financial performance between urban and rural hospitals is attributable to urban hospitals receiving more disproportionate share and indirect medical education payments.

**Chart 7-17. Overall Medicare margins, by teaching status, 1996–2002**

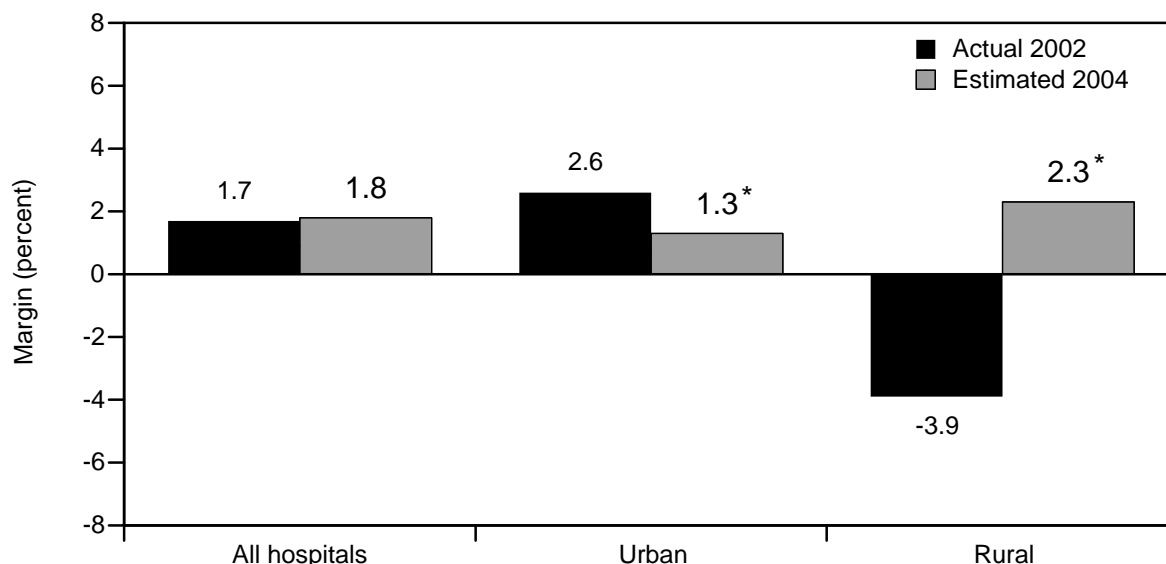


Note: Major teaching hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while other teaching hospitals have a ratio of less than 0.25. A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payment of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation units, skilled nursing facilities, and home health services, as well as graduate medical education and bad debts. Data on overall Medicare margins before 1996 are unavailable.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- Major teaching hospitals consistently have had higher overall Medicare margins than other teaching hospitals and nonteaching hospitals primarily because of the additional payments they receive through the indirect medical education and disproportionate share adjustments under the acute inpatient prospective payment system.
- In 2002, overall Medicare margins for major teaching hospitals were 10.7 percent, compared with 1.5 percent for other teaching and –2.8 percent for nonteaching hospitals.
- The difference in overall Medicare margins between major teaching hospitals and nonteaching hospitals has grown from about 10 percentage points in 1997 to 14 percentage points in 2002, reflecting in part the lower cost growth of major teaching hospitals.

**Chart 7-18. Overall Medicare margin, actual for 2002 and simulated for 2004 to account for current policy, including MMA provisions**



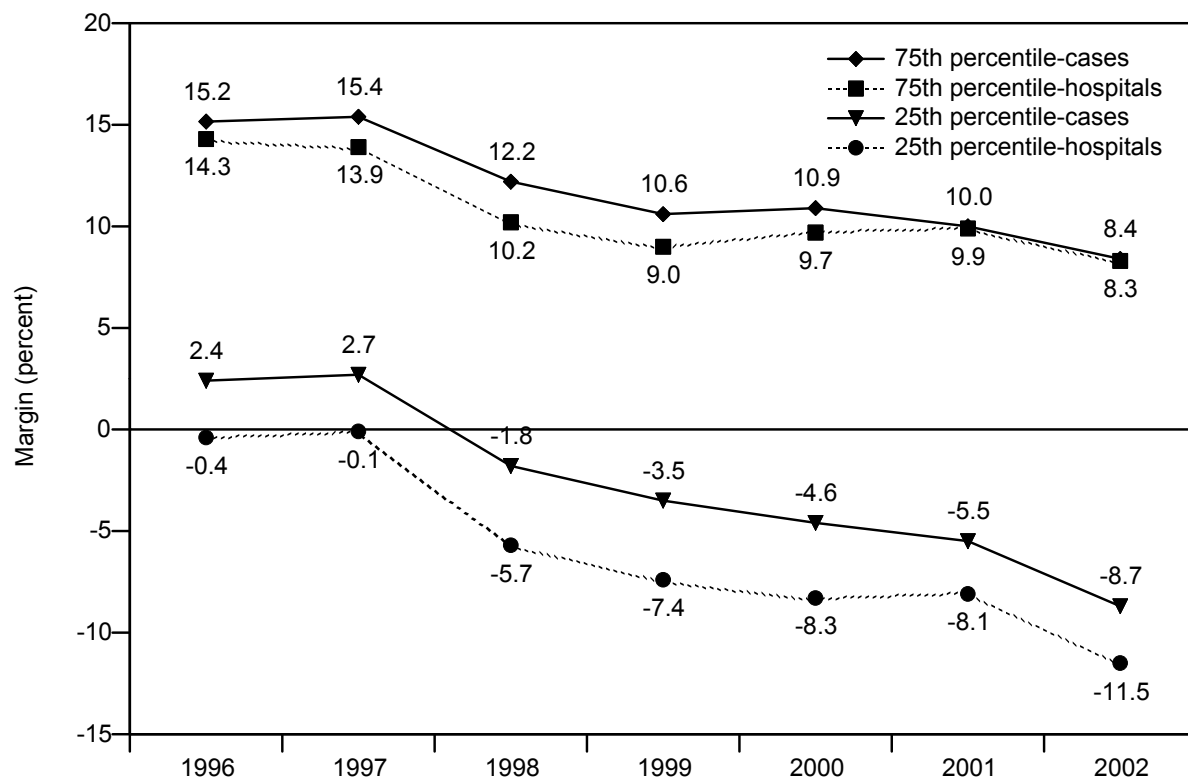
Note: MMA (Medicare Prescription Drug, Improvement, and Modernization Act of 2003). Data for all hospitals covered by Medicare's inpatient PPS (prospective payment system), excluding critical access hospitals (CAHs). Based on Medicare-allowable costs, with imputed values for hospitals whose 2002 cost reports were unavailable. Estimates for 2004 reflect the effects of policy changes implemented between 2002 and 2004 plus policy changes (other than updates) scheduled under the provisions of the MMA to go into effect in 2005.

\*Two provisions of the MMA could not be modeled at the hospital-specific level. These are a one-time opportunity for hospitals to appeal their wage indexes and liberalization of payments for CAHs. The estimated 2004 margin for all hospitals reflects a 0.4 percent payment increase for these provisions. While the margins shown for both urban and rural hospitals are understated by this amount, the two provisions are expected to have a greater proportionate impact on rural facilities.

Source: MedPAC analysis of Medicare Cost Report file, MedPAR, and market basket data from CMS.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) includes a number of provisions that will increase both inpatient and outpatient payments to hospitals. These provisions were targeted primarily to rural hospitals; consequently, rural hospital margins rose from -3.9 percent in 2002 to an estimated 2.3 percent in 2004.
- For urban facilities, we estimate that the increase in payments from MMA provisions is offset by CMS's tightening of inpatient outlier payments. In 2002, CMS discovered that certain hospitals were manipulating the outlier system, resulting in systematic overpayment for outlier cases. In June 2003, CMS implemented a revised method with the intent of returning aggregate outlier payments to the target level. In modeling payments for 2004, we assumed CMS's new outlier policy will achieve that goal. However, if outlier payments remain above the intended level, our margin estimate for 2004, all else equal, would be too low.
- A list of the key MMA provisions affecting hospital services can be found in Chapter 3A of MedPAC's March 2004 Report to the Congress, available at [http://www.medpac.gov/publications/congressional\\_reports/Mar03\\_Ch3A.pdf](http://www.medpac.gov/publications/congressional_reports/Mar03_Ch3A.pdf). Additional information on the outlier policy issue can be found in the Medicare 2002 Hospital Outlier Payment Policy, available at [http://www.medpac.gov/publications/other\\_reports/outlier%20memo.pdf](http://www.medpac.gov/publications/other_reports/outlier%20memo.pdf).

**Chart 7-19. Distribution of overall Medicare margins, 1996–2002**

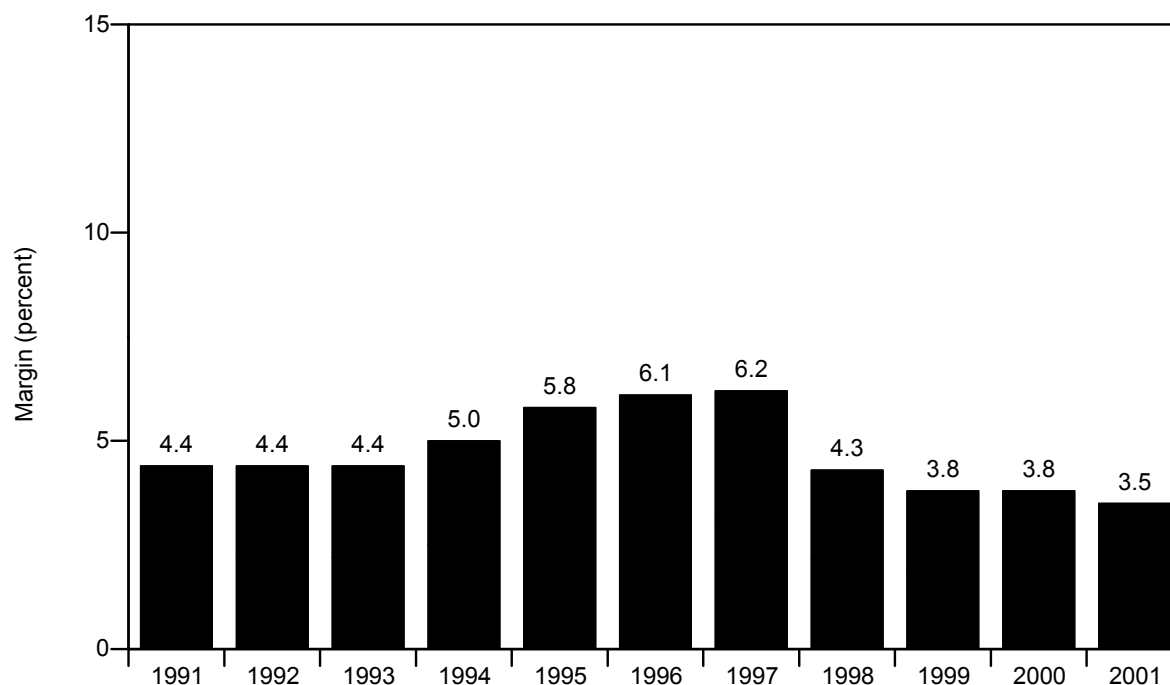


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2002 cost reports were not available. Analysis excludes critical access hospitals. Overall Medicare margins include the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation units, skilled nursing facilities, and home health services, as well as graduate medical education and bad debts. Data on overall Medicare margins before 1996 are unavailable. The graph shows two measures of distribution—the 25<sup>th</sup> and 75<sup>th</sup> percentiles of margins among hospitals and these percentiles weighted by case load.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- Like the aggregate overall Medicare margin, the 75<sup>th</sup> and 25<sup>th</sup> percentiles of this margin fell from historic high levels in 1996 and 1997 to their lowest level since the measure has been available in 2002.
- Since 1996, the 75<sup>th</sup> percentile values for the overall Medicare margin based on hospitals have fallen 6 percentage points, whereas the 25<sup>th</sup> percentile values have fallen 11 percentage points. The gap between the 25<sup>th</sup> and 75<sup>th</sup> percentile has also grown from 14 percentage points in the 1996 to 1998 period, to 20 percentage points in 2002.
- The distribution of case weighted margins between the 25<sup>th</sup> and 75<sup>th</sup> percentiles is not as wide as it is for hospitals. The 25<sup>th</sup> percentile case weighted margin is higher, indicating that hospitals in the bottom quarter of Medicare overall margins have a less than proportionate share of costs.
- In 2002, 45 percent of hospitals had positive overall Medicare margins. These hospitals accounted for 48 percent of Medicare inpatient discharges.

**Chart 7-20. Hospital total margins, 1991–2001**

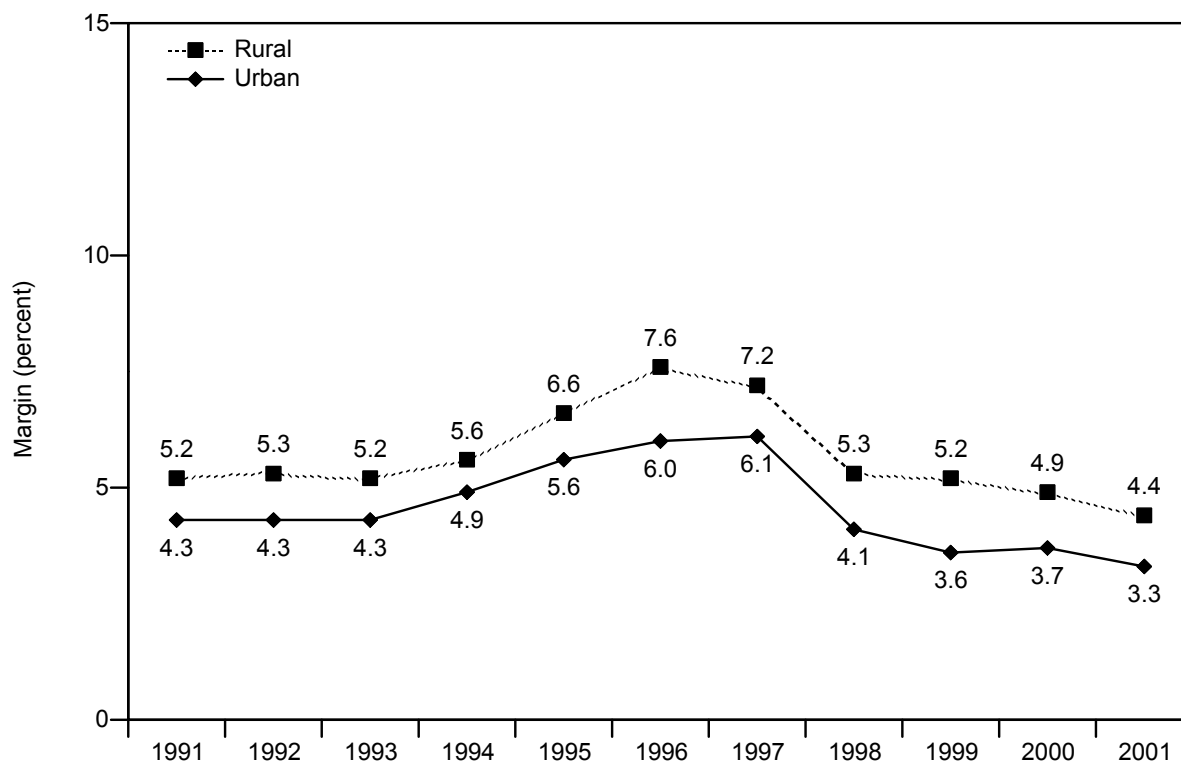


Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- The total hospital margin for all payers—Medicare, Medicaid, and private payers—reflects the relationship of all hospital revenues to all hospital costs, including inpatient, outpatient, post-acute, and nonpatient services.
- The total hospital margin gradually climbed from 4.4 percent in the 1991 to 1993 period to 6.2 percent in 1997, before declining to 3.5 percent in 2001.
- The recent fall in total margins corresponds to a drop in both Medicare and private payer margins. Medicare overall margins from 1996 through 2001 were higher than the total margin.
- In 2001, 68 percent of hospitals had positive total margins. These hospitals accounted for 72 percent of Medicare inpatient prospective payment system discharges.

**Chart 7-21. Total hospital margins, by urban and rural location, 1991–2001**

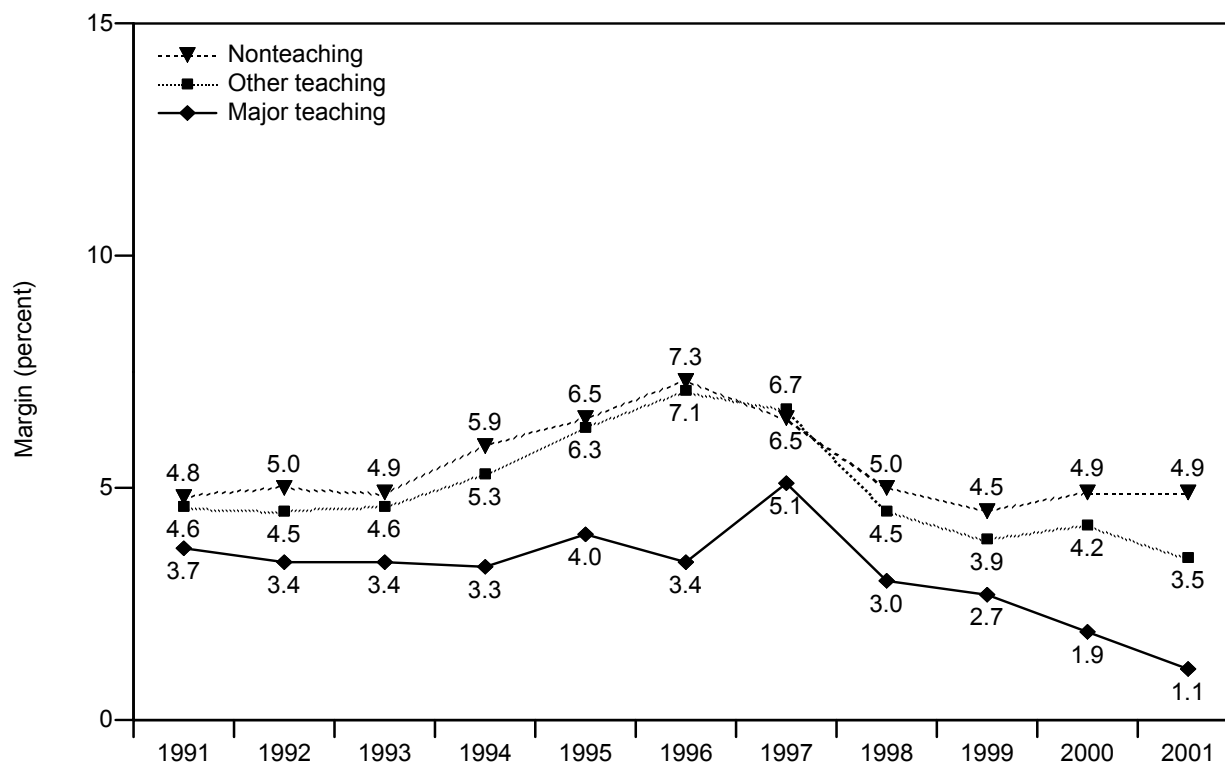


Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- Total margins for rural hospitals have consistently been about 1 percentage point higher than total margins for urban hospitals between 1991 and 2001. The general trend in margins is similar for both groups of hospitals.
- In 2001, the aggregate total margin was 3.3 percent for urban hospitals and 4.4 percent for rural hospitals. This relationship may be affected by Medicare Prescription Drug, Improvement, and Modernization Act of 2003 provisions aimed at helping rural hospitals (see Chart 7-18).

**Chart 7-22. Total hospital margins, by teaching status, 1991–2001**



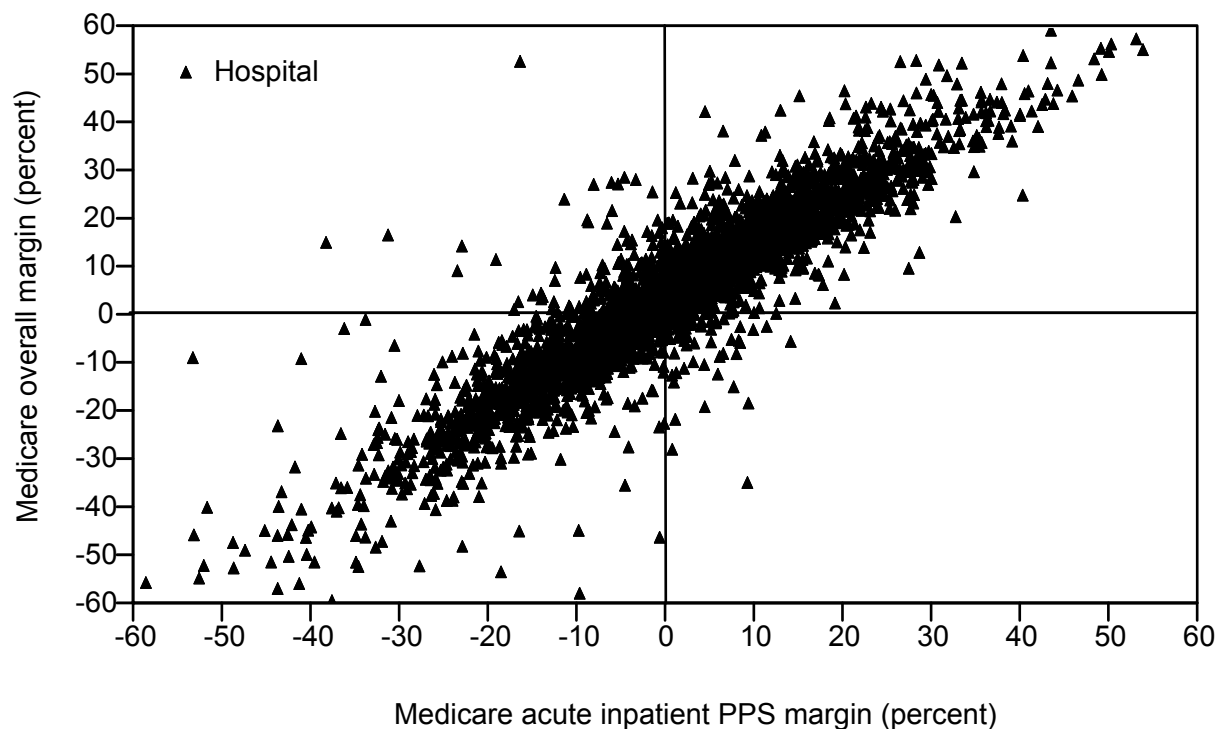
Note: Major teaching hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while other teaching hospitals have a ratio of less than 0.25. A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- The pattern of total margins by teaching status is the opposite of the pattern for Medicare inpatient and overall margins. The total margins of major teaching hospitals have consistently been lower than those for other teaching and nonteaching hospitals, and the gap has expanded somewhat in the last two years.



**Chart 7-23. Relationship of acute inpatient PPS and overall Medicare margins, 2001**

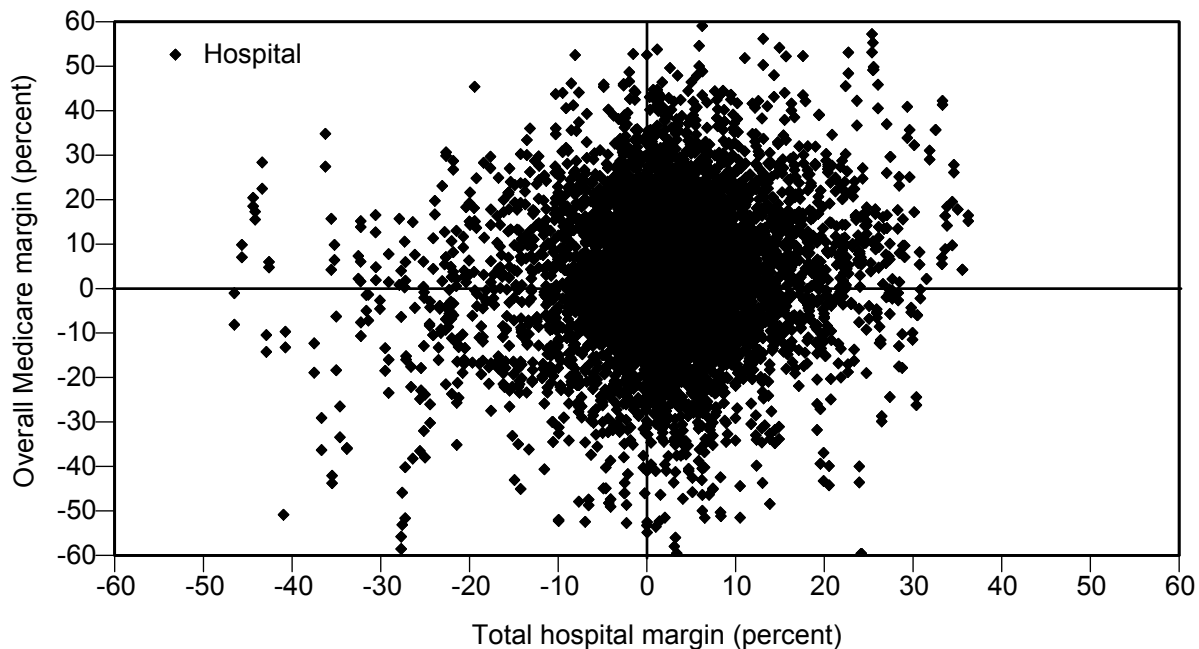


Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs. Analysis excludes critical access hospitals. The Medicare acute inpatient PPS margin includes services covered by the acute care inpatient PPS. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation units, skilled nursing facilities, and home health services, as well as graduate medical education and bad debts.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- The Medicare inpatient and overall margins are strongly correlated ( $R^2=0.883$ ). The Medicare overall and inpatient margins are closely related in part because inpatient payments make up about three-quarters of total Medicare payments.
- The Medicare overall margin tends to be lower than the inpatient margin, which may be overstated due to cost allocation bias.

**Chart 7-24. Relationship of overall Medicare and total margins, 2001**

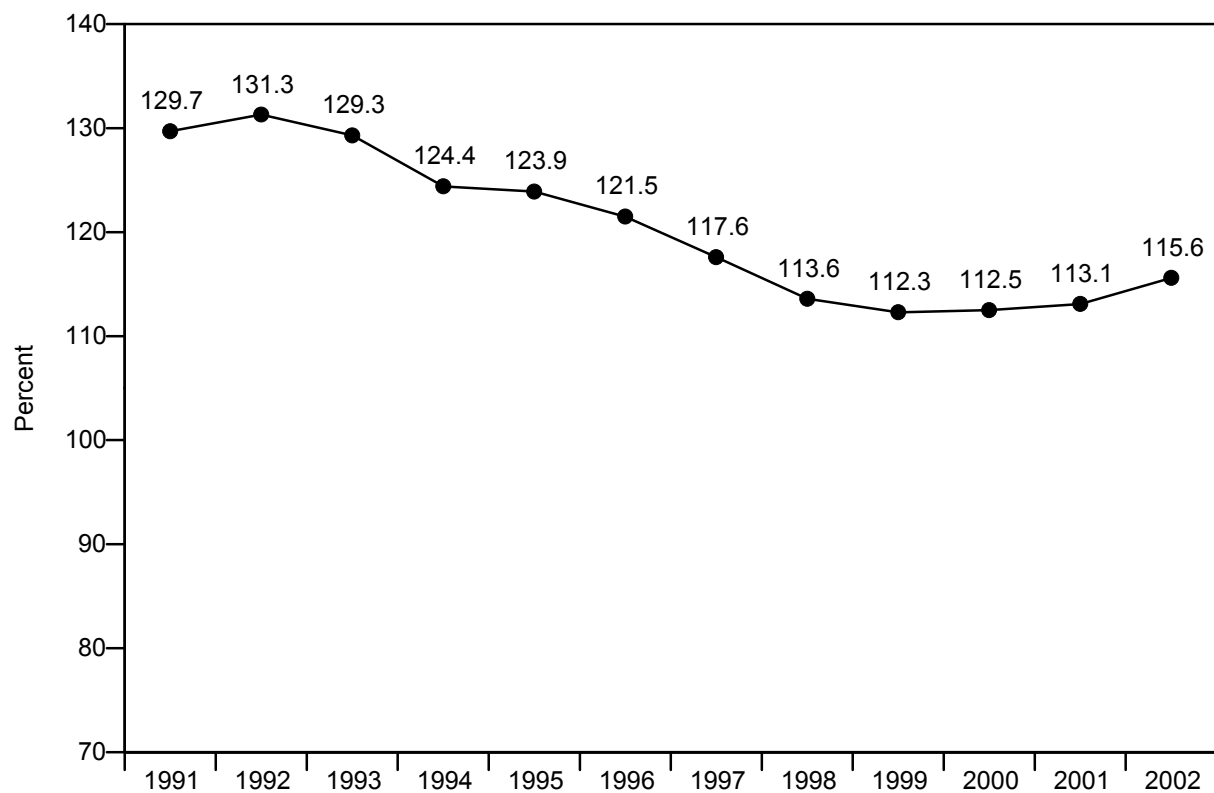


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and imputed for hospitals for which 2000 cost reports were not available. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation units, skilled nursing facility, and home health services, as well as graduate medical education and bad debts. Total margin includes all patient care services funded by all payers, plus nonpatient revenues.

Source: MedPAC analysis of Medicare cost report data (third quarter 2003) from CMS.

- There is virtually no relationship between hospitals' overall Medicare margins and total (all payer) margins ( $R^2=0.02$ ). That is, hospitals' performance in Medicare is not a good predictor of their performance across all payers and vice versa.
- Hospitals with negative Medicare margins and those with positive Medicare margins were almost equally likely to have positive total margins: 66 percent of hospitals with negative overall Medicare margins had positive total margins, while 73 percent of hospitals with positive Medicare margins had positive total margins.
- Hospitals in the upper right quadrant of the graph (38 percent), had positive overall Medicare margins and positive total margins in 2001, whereas hospitals in the lower left quadrant (16 percent) had negative overall Medicare margins and negative total margins.

**Chart 7-25. Hospital payment-to-cost ratios for private payers, 1991–2002**

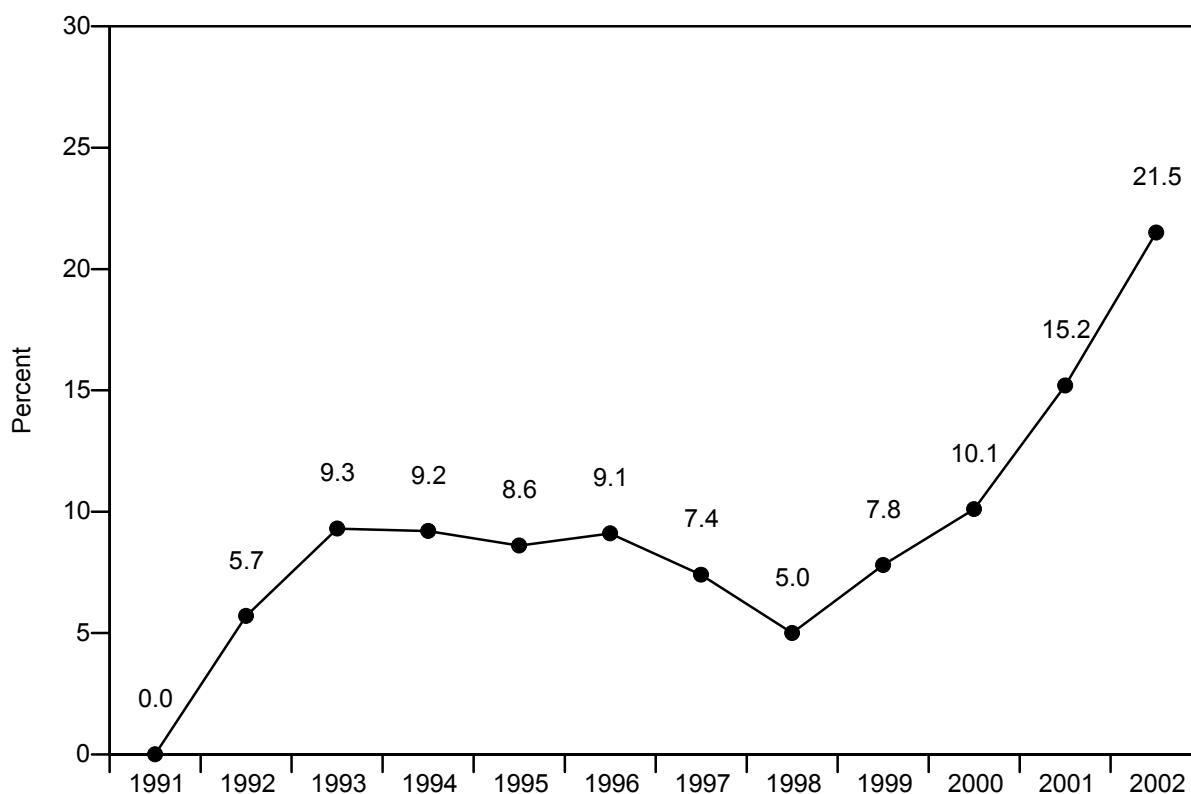


Note: Payment-to-cost ratios indicate the relative degree to which payments from each payer cover the costs of treating that payer's patients. Data are for community hospitals and cover all hospital services. Imputed values were used for missing data (about 33 percent of observations). Most Medicare and Medicaid managed care patients are included in the private payers category.

Source: MedPAC analysis of data from the American Hospital Association annual survey of hospitals.

- The decline in private payer payments relative to costs during the 1990s may reflect the pressures on hospitals' revenue exerted by managed care organizations and other private payers through their contractual negotiations. In recent years, it appears that hospitals have been able to increase payments from private payers.

**Chart 7-26. Cumulative change in hospital cost per adjusted admission, 1991–2002**

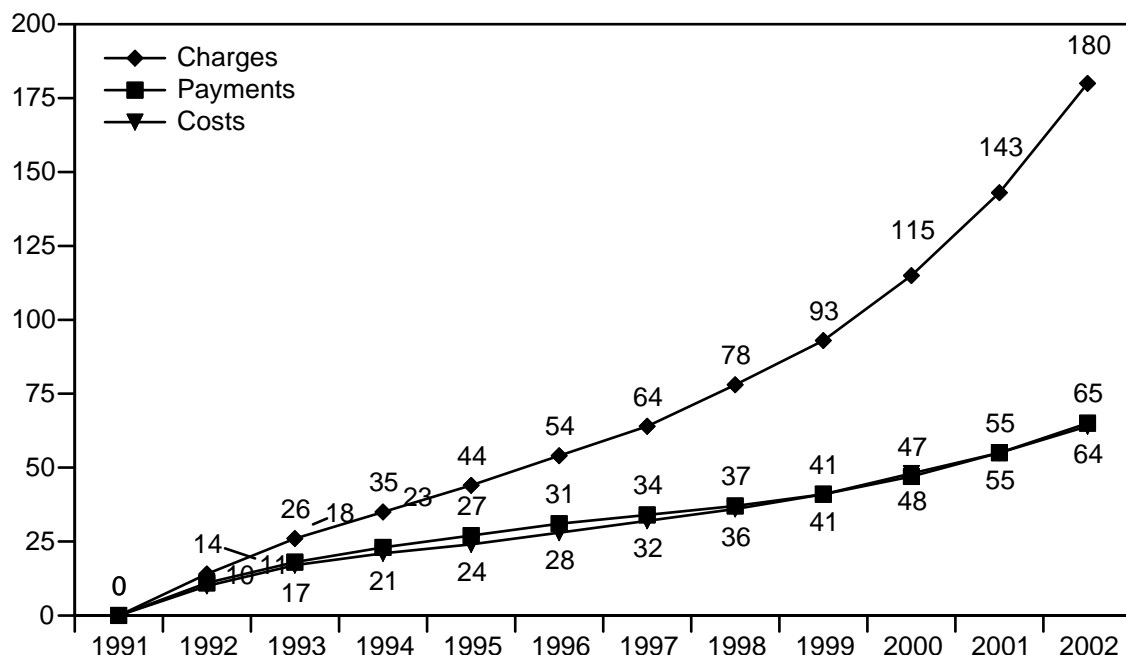


Note: Data are for patients at approximately 5,000 community hospitals.

Source: MedPAC analysis of data from the American Hospital Association annual survey of hospitals.

- Cost per adjusted admission is a comprehensive measure reflecting all patient care services. Adjusted admissions, a measure of hospital volume of inpatient, outpatient, and post-acute services, equals hospital admissions multiplied by the ratio of the sum of inpatient and outpatient revenue to inpatient revenue.
- The annual increase in hospital costs per adjusted admission averaged 4.6 percent from 1991 to 1993. Costs were nearly flat over the next three years and then actually declined in 1997 and 1998, before rising again from 1999 through 2002.
- The steep decline in cost growth may be associated with private sector pressure and decline in length of stay.
- Cost per adjusted admission increased 5.4 percent from \$6,980 in 2001 to \$7,355 in 2002.

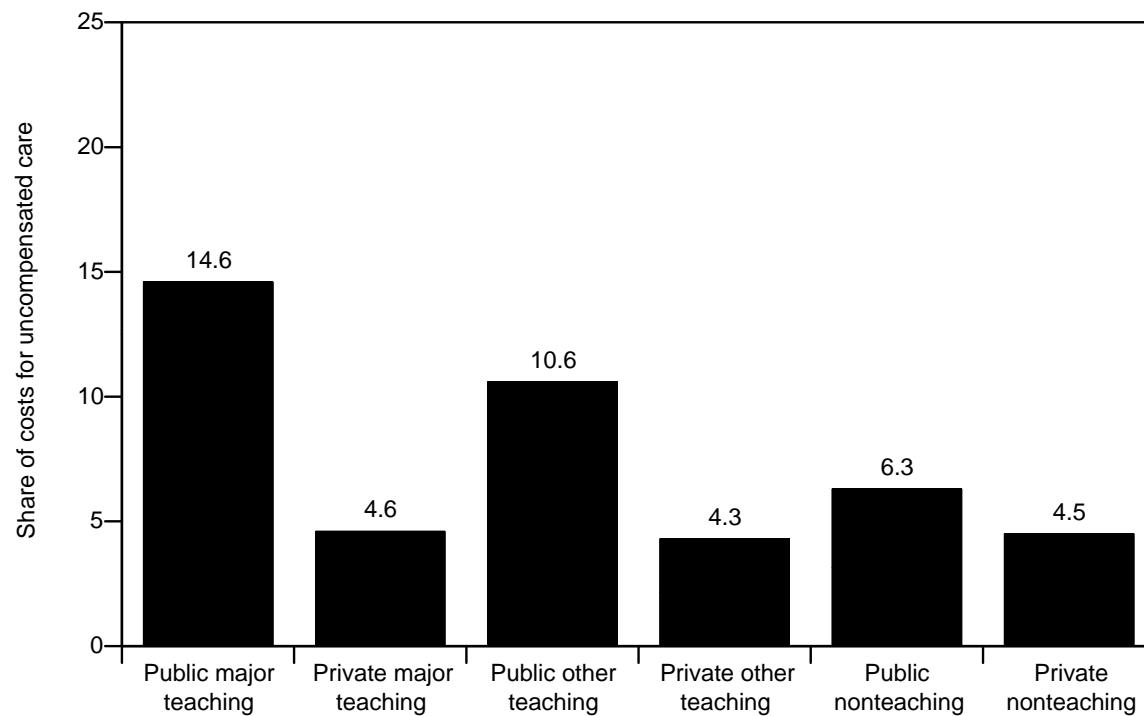
**Chart 7-27. Cumulative change in charges, payments, and costs for all hospital patient care services, 1991–2002**



Source: MedPAC analysis of data from the American Hospital Association annual survey of hospitals.

- From 1991 through 2002, hospitals' patient care costs and payments (covering all services and all payers) both rose about 65 percent, but hospitals raised their charges by 180 percent—more than two and half times as much. In 2000 through 2002, the difference in rate of growth between what hospitals charge for services and the cost of producing them—around 6 percentage points each year—was the largest in the last decade.
- Since few patients pay full charges, hospitals increasing their charges more than their costs or payments may not have had much impact on their financial performance in the aggregate. Some are concerned, however, that uninsured individuals may be asked to pay full charges and may have collection proceedings applied against them. Faster growth rates for charges in recent years may have resulted from hospitals attempting to maximize revenue from private payers (who often structure their payments as a discount off charges) or their revenue from Medicare outlier payments.
- Additional information on this outlier payment issue can be found in the Medicare 2002 Hospital Outlier Payment Policy, available at [http://www.medpac.gov/publications/other\\_reports/outlier%20memo.pdf](http://www.medpac.gov/publications/other_reports/outlier%20memo.pdf).

**Chart 7-28. Uncompensated care costs as a percent of total hospital costs, by teaching status and type of control, 2002**

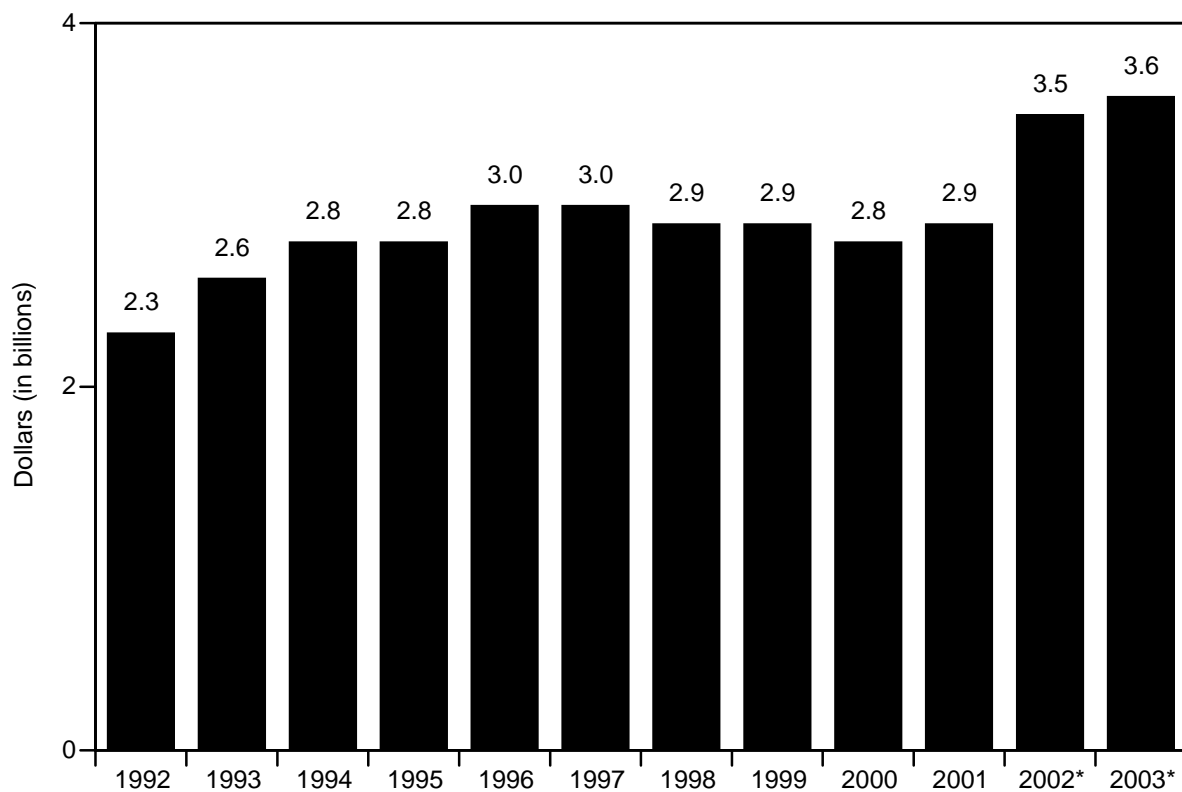


Note: Uncompensated care includes charity care, which is furnished without expectation of payment, and bad debts, for which the provider has made an unsuccessful effort to collect payment due.

Source: American Hospital Association annual survey of hospitals.

- Among major teaching hospitals, public institutions devote almost 15 percent of their resources to providing uncompensated care, compared to about 5 percent for private (nonprofit or proprietary) facilities. Although the differences are smaller, public other teaching and nonteaching institutions also provide more uncompensated care than their private counterparts.

**Chart 7-29. Medicare payments to inpatient psychiatric facilities, 1992–2001**



Note: \*Estimated spending. CMS estimates the prospective payment system for these facilities will be implemented in 2005.

Source: CMS, Office of the Actuary.

- Medicare program spending for beneficiaries' care in inpatient psychiatric facilities increased 3 percent per year on average, from \$2.3 billion in 1992 to \$2.9 billion in 2001. CMS estimates that program spending will increase 11 percent per year for 2002 and 2003 to \$3.6 billion.
- Spending on inpatient psychiatric facilities makes up about 1 percent of Medicare's total spending.
- In 2004, there are 1,867 inpatient psychiatric facilities—478 freestanding and 1,389 hospital-based units.

**Chart 7-30. Inpatient psychiatric facilities, 1994–2004**

	1994	1996	1998	2000	2002	2004
Freestanding hospitals	702	642	627	582	503	478
Hospital-based units	1,346	1,445	1,489	1,487	1,437	1,389
Total	2,048	2,087	2,116	2,069	1,940	1,867

Source: Online Survey, Certification, and Reporting system from CMS.

- Inpatient psychiatric facilities—both freestanding hospitals and hospital-based units—provide acute hospital care to beneficiaries with mental illnesses or alcohol- and drug-related problems.
- From 1994 to 2004, the number of Medicare-certified freestanding hospitals decreased by 32 percent while the number of hospital-based units increased by 3 percent, with a net loss of 8 percent of psychiatric facilities.
- The proposed inpatient psychiatric facility prospective payment system (PPS) can be found on the CMS website, available at <http://www.cms.hhs.gov/providers/ipfpps/>.
- MedPAC's comments on the proposed PPS can be found at [http://www.medpac.gov/publications/other\\_reports/012704\\_psych\\_SK\\_comment.pdf](http://www.medpac.gov/publications/other_reports/012704_psych_SK_comment.pdf).



## **Web links. Acute inpatient service**

### **Short-term hospitals**

- Appendix D of the MedPAC March 2003 Report to the Congress provides additional detailed information on hospital margins.

[http://www.medpac.gov/publications/congressional\\_reports/Mar03\\_AppD.pdf](http://www.medpac.gov/publications/congressional_reports/Mar03_AppD.pdf)

- Chapter 2A of the MedPAC March 2002 Report to the Congress provides information on the hospital market basket.

[http://www.medpac.gov/publications/congressional\\_reports/Mar02\\_Ch2A.pdf](http://www.medpac.gov/publications/congressional_reports/Mar02_Ch2A.pdf)

- CMS also provides information on the hospital market basket.

<http://www.cms.gov/statistics/health-indicators/t10.asp>

- CMS published the acute inpatient PPS proposed rule in the May 18, 2004 Federal Register.

<http://www.gpoaccess.gov/index.html>

### **Specialty psychiatric facilities**

- CMS provides information on the proposed inpatient prospective payment system.

<http://cms.hhs.gov/providers/ipfpps>

